

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

Claims 1-23 (canceled).

Claim 24 (currently amended): A terminal end-piece for a fuel assembly of a pressurized water nuclear reactor, the assembly comprising fuel rods having a length and a diameter, and a skeleton for supporting the fuel rods, the fuel rods extending in a longitudinal direction and being arranged at nodes of a substantially regular network, the fuel rods having outer claddings closed by an upper and a lower plug, the support skeleton comprising two terminal end-pieces and guide tubes that connect the terminal end-pieces, the fuel rods being arranged longitudinally between the terminal end-pieces, the terminal end piece comprising:

an inner and an outer side, the inner side for facing the fuel rods and the outer side being facing opposite the inner side the fuel rods;

noses for orientating flow of a coolant fluid of the reactor along adjacent longitudinal ends of the fuel rods, the noses being arranged at least one of in the nodes of the substantially regular network in order to be positioned in a longitudinal continuation of at least some of the fuel rods and/or at least some of the guide tubes of the support skeleton,

wherein the noses have an inner surface facing the fuel rods and an outer surface opposite the inner surface that converges to be narrower than the diameter of the fuel rods in a direction that is orientated towards the outer side of the end piece.

Claim 25 (canceled).

Claim 26 (previously presented): The end-piece according to claim 24, wherein at least some of the noses belong to members for fixing at least one of the terminal end-pieces to one of the guide tubes of the support skeleton and fuel rods.

Claim 27 (previously presented): The end-piece according to claim 26, wherein the fixing members are screws.

Claim 28 (previously presented): The end-piece according to claim 24 further comprising:
an arrangement for laterally maintaining the adjacent longitudinal ends of the fuel rods, wherein the arrangement is arranged in the nodes of the substantially regular network.

Claim 29 (withdrawn): The end-piece according to claim 28, wherein the maintenance housing further comprises housings for receiving the adjacent longitudinal ends of the fuel rods.

Claim 30 (previously presented): The end-piece according to claim 28, wherein the maintenance arrangement has an arrangement for longitudinally securing the adjacent longitudinal ends of the fuel rods relative to the terminal end-piece.

Claim 31 (previously presented): The end-piece according to claim 30, wherein the end-piece comprises two components for clamping between them the adjacent longitudinal ends of the fuel rods.

Claim 32 (previously presented): The end-piece according to claim 24, wherein the end piece comprises an anti-debris filter.

Claim 33 (previously presented): The end-piece according to claim 31, wherein one of the components comprises an anti-debris filter.

Claim 34 (previously presented): The end-piece according to claim 24, wherein the end piece further comprises a bottom end piece.

Claim 35 (previously presented): The end-piece according to claim 34, wherein the end piece comprises feet for support on a lower plate of the nuclear reactor core.

Claim 36 (currently amended): A fuel assembly for a pressurized water nuclear reactor, the assembly comprising:

fuel rods, the fuel rods having an outer cladding and an upper and a lower plug and having a length and a diameter; and

a skeleton for supporting fuel rods, the fuel rods extending in a longitudinal direction and being arranged at nodes of a substantially regular network, the support skeleton comprising two terminal end-pieces and guide tubes that connect the terminal end-pieces, the fuel rods being arranged longitudinally between the terminal end-pieces, wherein a first end-piece has an inner side and an outer side, the inner side facing the fuel rods and the outer side facing being opposite the inner side fuel rods and has noses for orientating flow of a coolant fluid of the reactor along adjacent longitudinal ends of the fuel rods, the noses being arranged at least one of in the nodes of the substantially regular network in order to be positioned in a longitudinal continuation of at least some of the fuel rods and/or at least some of the guide tubes of the support skeleton,

wherein the noses have an inner surface facing the fuel rods and an outer surface opposite the inner surface that converges to be narrower than the diameter of the fuel rods in a direction that is orientated towards the outer side of the end piece.

Claim 37 (previously presented): The assembly according to claim 36, wherein at least one of the end-pieces comprises an arrangement for laterally maintaining adjacent longitudinal ends of the fuel rods, wherein the arrangement is configured in nodes of the substantially regular network.

Claim 38 (withdrawn): The assembly according to claim 37, wherein the arrangement comprises housings that receive the adjacent longitudinal ends of the fuel rods.

Claim 39 (previously presented): The assembly according to claim 37, wherein the maintenance arrangement is an arrangement for longitudinally securing the adjacent longitudinal ends of the fuel rods relative to the terminal end-pieces.

Claim 40 (previously presented): The assembly according to claim 39, wherein the end-piece comprises two components that clamp between them the adjacent longitudinal ends of the fuel rods.

Claim 41 (withdrawn): The assembly according to claim 40, wherein the longitudinal securing arrangement comprises projections that are provided on the end-piece and rings that are provided at the adjacent longitudinal ends of the fuel rods and that are fitted to the projections.

Claim 42 (withdrawn): The assembly according to claim 41, wherein that the rings comprise relief portions for abutment against one of the components.

Claim 43 (withdrawn): The assembly according to claim 38, wherein the adjacent longitudinal ends of the fuel rods comprise widened feet that are clamped between the two components.

Claim 44 (withdrawn): The assembly according to claim 37, wherein the adjacent longitudinal ends of the fuel rods are expansion-rolled on the end-piece.

Claim 45 (withdrawn): The assembly according to claim 39, wherein the longitudinal securing arrangement comprises screws that abut the end-piece and that are engaged in the adjacent longitudinal ends of the fuel rods.

Claim 46 (withdrawn): The assembly according to claim 39, wherein the longitudinal securing arrangement secured by snap-fitting.

Claim 47 (new): The assembly according to claim 36 wherein the noses converge to a point.

Claim 48 (new): The terminal end-piece according to claim 24 wherein the noses converge to a point.